

Publications dans des revues internationales à comité de lecture

B. Loup, F. André, N. Leuenberger, A. Marchand, A. Barnabé, V. Delcourt, P. Garcia, M.A. Popot, L. Bailly-Chouriberry. **New transcriptomic biomarkers for detection of the recombinant human erythropoietin (rHuEPO) MirCERA in horses. Drug Test. Anal., 2024, 1-10.**

<https://doi.org/10.1002/dta.3812>

K.Y. Kwok, W.H. Kwok, M.A. Popot, M. Jaubert, L. Bailly-Chouriberry, B.T. Heffron, L. Brooks, C.K. Choo, J. Tso, R. Tso, B. McKenzie, N. Selvadurai, D. Batty, B. Gray, A. Hudson, S. Ragazzoni, C. Mariani, T.S.M. Wan, E.N. M. Ho. **Doping control analysis of total carbon dioxide (TCO₂) in equine plasma by headspace gas chromatography-mass spectrometry (HS-GC/MS). Drug Test. Anal., 2024, 1-9.**

<https://doi.org/10.1002/dta.3832>

S. Trevisiol, M.A. Popot, P. Garcia, S. Boyer, M. Caroff, L. Drif, W. Taleb, S. Tendon, Y. Moulard, L. Bailly-Chouriberry. **In vivo comparative study of hemp straw exposure and cannabidiol oil administration in horse urine. Drug Test. Anal., 2024, 1-7.**

<https://doi.org/10.1002/dta.3783>

V. Delcourt, J. Pinetre, B. Chabot, A. Barnabé, M. Cacault, B. Loup, F. Becher, F. Fenaille, M.A. Popot, P. Garcia, L. Bailly-Chouriberry. **High-throughput equine doping controls on a trapped ion mobility quadrupole-time-of-flight mass spectrometer: Technical considerations of dia/slice/prmPASEF applied to the long-term detection of monoclonal antibodies. Drug Test. Anal., 2024, 1-8.**

<https://doi.org/10.1002/dta.3797>

V. Delcourt, P. Garcia, B. Chabot, N. Aber, M. Pescher, M. Cacault, P. Scholtes, B. Loup, A. Barnabé, M.A. Popot, L. Bailly-Chouriberry. **Equine doping controls of Thymosin β 4: A population study and strategy for misuse detection. Drug Test. Anal., 2024, 1-8.**

<https://doi.org/10.1002/dta.3806>

A. Barnabé, B. Loup, A. Cawley, V. Delcourt, P. Garcia, M.A. Popot, J. Keledjian, L. Bailly-Chouriberry. **Bayesian individual limits for IGF-1 monitoring in equine plasma : Implementation in the equine biological passport. Drug Test. Anal., 2024, 1-8.**

<https://doi.org/10.1002/dta.3795>

B. Seguí Pedrosa, C. Dujardin, B. Moses, C. Thompson, P. Sarasola, F. Gattacceca, B. Loup, P. Garcia, M.A. Popot, L. Bailly-Chouriberry. **Detection times of clodronic acid in horses with orthopaedic disease. J. Vet. Pharmacol. Therap., 2024, 47, 380-389.**

<https://doi.org/10.1111/jvp.13453>

B. Gray, L. Bailly-Chouriberry, W.H. Kwok, S. Yamada, M. Yamada, B. Moeller. **Association of Official Racing Chemists guidelines for drug testing in animal hair for doping control.** *Drug Test. Anal.*, 2024, 1-7.

<https://doi.org/10.1002/dta.3696>

J. Pinère, V. Delcourt, F. Becher, B. Chabot, A. Barnabé, F. Fenaille, M.A. Popot, P. Garcia, L. Bailly-Chouriberry. **Émergence des bio-thérapeutiques et implications pour le bien-être animal et le contrôle antidopage équin.** *L'actualité chimique*, 2024, 492, 19-21.

<https://new.societechimiquedefrance.fr/numero/emergence-des-bio-therapeutiques-et-implications-pour-le-bien-etre-animal-et-le-controle-antidopage-equin-p19-n492/>

J. Pinère, V. Delcourt, F. Becher, P. Garcia, A. Barnabé, B. Loup, M.A. Popot, F. Fenaille, L. Bailly-Chouriberry. **High-throughput untargeted screening of biotherapeutic macromolecules in equine plasma by UHPLC-HRMS/MS: Application to monoclonal antibodies and Fc-fusion proteins for doping control.** *Drug Test. Anal.*, 2023.

<http://doi.org/10.1002/dta.3525>

M. Viljanto, Z. Kaabia, P. Taylor, P. Hincks, T. Muir, J. Habershon-Butcher, L. Bailly-Chouriberry, J. Scarth. **Detection of boldenone in the urine of female horses-ex vivo formation versus administration.** *Drug Test Anal.*, 2023.

<https://doi.org/10.1002/dta.3521>

C. Cloteau, Z. Kaabia, B. Le Bizec, L. Bailly-Chouriberry, G. Dervilly. **From targeted methods to metabolomics based strategies to screen for growth promoters misuse in horseracing and livestock: A review.** *Food Control*, 2023, 148.

<https://doi.org/10.1016/j.foodcont.2023.109601>

C. Cloteau, G. Dervilly, B. Loup, V. Delcourt, Z. Kaabia, F. Bagilet, G. Groseille, K. Dauriac, S. Fisher, M.A. Popot, P. Garcia, B. Le Bizec, L. Bailly-Chouriberry. **Performance assessment of an equine metabolomics model for screening a range of anabolic agents.** *Metabolomics*, 2023, 19, 38.

<https://doi.org/10.1007/s11306-023-01985-0>

V. Delcourt, P. Garcia, B. Chabot, A. Barnabé, M. Bouscarel, B. Loup, M.A. Popot, L. Bailly-Chouriberry. **TB500/TB1000 and SGF1000: A scientific approach for a better understanding of misbranded and adulterated drugs.** *Drug Test. Anal.*, 2023, 15, 458-464.

<https://doi.org/10.1002/dta.3421>

C. Cloteau, G. Dervilly, Z. Kaabia, F. Bagilet, V. Delcourt, B. Loup, Y. Guitton, A.L. Royer, F. Monteau, P. Garcia, M.A. Popot, B. Le Bizec, L. Bailly-Chouriberry. **From a non-targeted metabolomics approach to a targeted biomarkers strategy to highlight testosterone abuse in equine. Illustration of a methodological transfer between platforms and laboratories.** *Drug Test. Anal.*, 2022, 14, 864-878.

<https://doi.org/10.1002/dta.3221>

M. Viljanto, Z. Kaabia, P. Taylor, T. Muir, J. Habershon-Butcher, L. Bailly-Chouriberry, J. Scarth. **Differentiation of boldenone administration from ex vivo transformation in the urine of castrated male horses.** *Drug Test. Anal.*, 2022.

<https://doi.org/10.1002/dta.3240>

V. Delcourt, P. Garcia, I. Pottier, N. Mansoibou, N. Bache, Y. Glavieux, B. Chabot, I. Perot, F. André, B. Loup, A. Barnabé, M.A. Popot, L. Bailly-Chouriberry. **Development of a standardized microflow LC gradient to enable sensitive and long-term detection of synthetic anabolic-androgenic steroids for high-throughput doping controls.** *Anal. Chem.*, 2021, 93, 47, 15590-15596. <https://doi.org/10.1021/acs.analchem.1c03392>

S. Trévisiol, Y. Moulard, Z. Kaabia, V. Delcourt, B. Loup, P. Garcia, S. Boyer, K. Dauriac, G. Groseille, S. Rouger, R. Narbe, M.A. Popot, L. Bailly-Chouriberry. **LC-HRMS/MS study of the prodrug ciclesonide and its active metabolite desisobutyryl-ciclesonide in plasma after an inhalative administration to horses for doping control purposes.** *Drug Test. Anal.*, 2021, 14, 252-261. <https://doi.org/10.1002/dta.3174>

L. Bailly-Chouriberry. **Assurer la régularité des compétitions hippiques et sportives : au cœur des activités du Laboratoire des Courses Hippiques.** *Le Nouveau Prat. Vet. Equine*, 2021, 53(14), 200-208.

P. Garcia, I. Perot, B. Loup, F. Balssa, M. Jaubert, V. Delcourt, C. Dujardin, M.A. Popot, L. Bailly-Chouriberry. **Long-term detection of clodronate in equine plasma by liquid chromatography-tandem mass spectrometry.** *Drug Test. Anal.*, 2021, 13, 1527-1534. <https://doi.org/10.1002/dta.3050>

B. Loup, F. André, J. Avignon, M. Lhuair, V. Delcourt, A. Barnabé, P. Garcia, M.A. Popot, L. Bailly-Chouriberry. **miRNAs detection in equine plasma by quantitative polymerase chain reaction for doping control: Assessment of blood sampling and study of eca-miR-144 as potential erythropoiesis stimulating agent biomarker.** *Drug Test. Anal.*, 2021. <https://doi.org/10.1002/dta.3047>

S. Trévisiol, Y. Moulard, V. Delcourt, M. Jaubert, S. Boyer, S. Tendon, H. Haryouli, W. Taleb, M. Caroff, B. Chabot, L. Drif, F. André, P. Garcia, B. Loup, M.A. Popot, L. Bailly-Chouriberry. **Comprehensive characterization of the peroxisome proliferator activated receptor- δ agonist GW501516 for horse doping control analysis.** *Drug Test. Anal.*, 2021, 13, 1191-1202. <https://doi.org/10.1002/dta.3013>

A. Barnabé, Y. Moulard, S. Trévisiol, S. Boyer, M. Caroff, W. Taleb, S. Tendon, L. Drif, V. Delcourt, M.A. Popot, L. Bailly-Chouriberry. **Kavain detection in post-race equine urine sample: A case report.** *Drug Test. Anal.*, 2021, 13, 883-886. <https://doi.org/10.1002/dta.2996>

V. Delcourt, A. Barnabé, B. Loup, P. Garcia, F. André, B. Chabot, S. Trévisiol, Y. Moulard, M.A. Popot, L. Bailly-Chouriberry. **MetIDfyR, an Open-Source R Package to Decipher Small-Molecule Drugs Metabolism Through High Resolution Mass Spectrometry.** *Anal. Chem.*, 2020, 92, 13155-13162. <https://dx.doi.org/10.1021/acs.analchem.0c02281>

P. Garcia, J. Pinètre, S. Morel, M. Jaubert, X. Deruy, I. Perot, V. Delcourt, B. Loup, M.A. Popot, L. Bailly-Chouriberry. **An innovative derivatization-free IC-MS/MS method for the detection of bisphosphonates in horse plasma.** *Drug Test. Anal.*, 2020, 12, 1452-1461. <https://doi.org/10.1002/dta.2892>

V. Delcourt, P. Garcia, B. Chabot, B. Loup, P. Remy, M.A. Popot, L. Bailly-Chouriberry. **Screening and confirmatory analysis of recombinant Human EPO for racing camels doping control.** *Drug Test. Anal.*, 2020, 12, 763-770.

<https://doi.org/10.1002/dta.2772>

N. Stojiljkovic, F. Leroux, S. Bubanj, M.A. Popot, A.C. Paris, J.C. Tabet, C. Junot. **Tracking main environmental factors masking a minor steroidal doping effect using metabolomic analysis of horse urine by liquid chromatography-high-resolution mass spectrometry.** *Eur. J. Mass Spectrom.*, 2019, 25(3), 339-353.

<https://doi.org/10.1177/1469066719839034>

L. Bailly-Chouriberry, P. Garcia, F. Cormant, B. Loup, M.A. Popot and Y. Bonnaire. **Use of split-free nanoLC-MS/HRMS interface to improve the detection of α -cobratoxin in equine plasma for doping control.** *Drug Test. Anal.*, 2018, 10, 880-885.

<https://doi.org/10.1002/dta.2348>

M.A. Popot, M. Jacobs, P. Garcia, B. Loup, J. Guyonnet, P.L. Toutain, L. Bailly-Chouriberry and Y. Bonnaire. **Pharmacokinetics of tiludronate in horses for the control of doping.** *Equine Vet. J.*, 2018, 50, 488-492.

<https://doi.org/10.1111/evj.12789>

N. Stojiljkovic, S. Bubanj, M. Djordjevic, S. Mazic, C. Junot, M.A. Popot, Y. Bonnaire and J.C. Tabet. **Urine Fingerprints of Stanozolol Treated Horses by Liquid Chromatography High Resolution Mass Spectrometry.** *J. Sports Med. Doping Stud.*, 2017, 7, 4.

<https://doi.org/10.4172/2161-0673.1000196>

C. Joré, B. Loup, P. Garcia, L. Bailly-Chouriberry, E. Varlet-Marie, M.A. Popot, M. Audran and Y. Bonnaire. **LC-HRMS-based Metabolomic Approach for the Detection of CERA's Effects in Doping Control.** *J. Chromatogr. A*, 2017, 1521, 90-99.

<https://doi.org/10.1016/j.chroma.2017.09.029>

L. Bailly-Chouriberry, B. Loup, M.A. Popot, M.L. Dreau, P. Garcia, J.F. Bruyas and Y. Bonnaire. **Two complementary methods to control GnRH vaccination (Improvac®) misuse in horseracing: ELISA test in plasma and Steroidomics in urine.** *Drug Test. Anal.*, 2017, 9, 1432-1440.

<https://doi.org/10.1002/dta.2187>

L. Bailly-Chouriberry, F. Baudoin, F. Cormant, Y. Glavieux, B. Loup, P. Garcia, M.A. Popot and Y. Bonnaire. **RNA sample preparation applied to gene expression profiling for the horse biological passport.** *Drug Test. Anal.*, 2017, 9, 1448-1455.

<https://doi.org/10.1002/dta.2204>

J. K. Y. Wong, W. H. Kwok, G. H. M. Chan, T. L. S. Choi, E. N. M. Ho, M. Jaubert, L. Bailly-Chouriberry, Y. Bonnaire, A. Cawley, H. M. Williams, J. Keledjian, L. Brooks, A. Chambers, Y. Lin and T. S. M. Wan. **Doping control study of AICAR in postrace urine and plasma samples from horses.** *Drug Test. Anal.*, 2017, 9, 1363-1371.

<https://doi.org/10.1002/dta.2205>

M.A. Popot, E. N. M. Ho, N. Stojiljkovic, F. Bagilet, P. Remy, P. Maciejewski, B. Loup, G. H. M. Chan, S. Hargrave, R. M. Arthur, C. Russo, J. White, P. Hincks, C. Pearce, G. Ganio, P. Zahra, D. Batty, M. Jarrett, L. Brooks, L. A. Prescott, L. Bailly-Chouriberry, Y. Bonnaire, T. S. M. Wan. **Interlaboratory trial for the**

measurement of total cobalt in equine urine and plasma by ICP-MS. *Drug Test. Anal.*, 2017, 9, 1400-1406.

<https://doi.org/10.1002/dta.2191>

A. Decloedt, L. Bailly-Chouriberry, J. Vanden Bussche, P. Garcia, M.A. Popot, Y. Bonnaire and L. Vanhaecke.

Moulded feed: a possible explanation for the excretion of anabolic-androgenic steroids in horses. *Drug Test Anal.*, 2016, 8, 525-534.

<https://doi.org/10.1002/dta.2023>

J.C. Martin, M. Maillot, G. Mazerolles, A. Verdu, B. Lyan, C. Migné, C. Defoort, C. Canlet, C. Junot, C. Guillou, C. Manach, D. Jabob, D. J.-R. Bouveresse, E. Paris, E. Pujos-Guillot, F. Jourdan, F. Giacomoni, F. Courant, G. Favé, G. Le Gall, H. Chassaigne, J.C. Tabet, J.F. Martin, J.P. Antignac, L. Shintu, M. Defernez, M. Philo, M.C.

Alexandre-Gouaubau, M.J. Amiot-Carlin, M. Bossis, M. N. Triba, N. Stojilkovic, N. Banzet, R. Molinié, R. Bott, S. Goulitquer, S. Caldarelli, D. N. Rutledge. **Can we trust untargeted metabolomics? Results of the metabo-ring initiative, a large-scale, multi-instrument inter-laboratory study.** *Metabolomics*, 2015, 11, 807-821.

<https://doi.org/10.1007/s11306-014-0740-0>

A. Decloedt, L. Bailly-Chouriberry, J. Vanden Bussche, P. Garcia, M.A. Popot, Y. Bonnaire and L. Vanhaecke. **A validated U-HPLC-MS/MS method to quantify low levels of anabolic-androgenic steroids naturally present in urine of untreated horses.** *Anal. Bioanal. Chem.*, 2015, 407, 4385-4396.

<https://doi.org/10.1007/s00216-014-8428-x>

A. Decloedt, L. Bailly-Chouriberry, J. Vanden Bussche, P. Garcia, M.A. Popot, Y. Bonnaire, L. Vanhaecke. **In vitro simulation of the equine hindgut as a tool to study the influence of phytosterol consumption on the excretion of anabolic-androgenic steroids in horses.** *J. Steroid Biochem. Mol. Biol.*, 2015, 152, 180-192.

<https://doi.org/10.1016/j.jsbmb.2015.06.001>

M.A. Popot, P. Garcia, C. Hubert, A. Bolopion, L. Bailly-Chouriberry, Y. Bonnaire, D. Thibaud and J. Guyonnet. **HPLC/ESI-MSn method for non-amino bisphosphonates: Application to the detection of tiludronate in equine plasma.** *J. Chromatogr. B*, 2014, 958, 108-116.

<https://doi.org/10.1016/j.jchromb.2014.03.018>

N. Stojilkovic, A.C. Paris, P. Garcia, M.A. Popot, Y. Bonnaire, J.C. Tabet, C. Junot. **Evaluation of horse urine sample preparation methods for metabolomics using LC coupled to HRMS.** *Bioanalysis*, 2014, 6(6), 785-803.

<https://doi.org/10.4155/bio.13.324>

Z. Kaabia, G. Dervilly-Pinel, M.A. Popot, L. Bailly-Chouriberry, P. Plou, Y. Bonnaire and B. Le Bizec. **Monitoring the endogenous steroid profile disruption in urine and blood upon nandrolone administration: An efficient and innovative strategy to screen for nandrolone abuse in entire male horses.** *Drug Test Anal.*, 2014, 6, 376-388.

<https://doi.org/10.1002/dta.1520>

F. Balssa, M. Fischer, Y. Bonnaire. **An easy stereoselective synthesis of 5(10)-estrene-3 β ,17 α -diol, a biological marker of pregnancy in the mare.** *Steroids*, 2014, 86, 1-4.

<https://doi.org/10.1016/j.steroids.2014.04.009>

L. Bailly-Chouriberry, F. Cormant, P. Garcia, A. Kind, M.A. Popot and Y. Bonnaire. **Identification of alpha-cobratoxin in equine plasma by LC-MS/MS for doping control.** *Anal. Chem.*, 2013, 85, 5219-5225.

<https://doi.org/10.1021/ac4006342>

Z. Kaabia, G. Dervilly-Pinel, F. Hanganu, N. Cesbron, E. Bichon, M.A. Popot, Y. Bonnaire, B. Le Bizec. **Ultra-high performance liquid chromatography/tandem mass spectrometry based identification of steroid esters in serum and plasma: an efficient strategy to detect natural steroids abuse in breeding and racing animals.** *J. Chromatogr. A*, 2013, 1284, 126-140.

<https://doi.org/10.1016/j.chroma.2013.02.010>

L. Bailly-Chouriberry, F. Cormant, P. Garcia, M. Lönnberg, S. Szwandt, U. Bondesson, M.A. Popot and Y. Bonnaire. **A new analytical method based on anti-EPO monolith column and LC-FAIMS-MS/MS for the detection of rHuEPOs in horse plasma and urine samples.** *Analyst*, 2012, 137, 2445-2453.

<https://doi.org/10.1039/c2an15662h>

M. Lönnberg, U. Bondesson, F. Cormant, P. Garcia, Y. Bonnaire, J. Carlsson, M.A. Popot, N. Rollborn, K. Råsbo and L. Bailly-Chouriberry. **Detection of recombinant human EPO administered to horses using MAIA lateral flow isoform test.** *Anal. Bioanal. Chem.*, 2012, 403, 1619-1628.

<https://doi.org/10.1007/s00216-012-5972-0>

F. Balssa. **Synthesis of labeled caffeine.** In: *Caffeine: Chemistry, Analysis, Function and Effects*. Chap. 5, 2012, 72-88. Ed. The Royal Society of Chemistry.

<https://doi.org/10.1039/9781849734752-00072>

P. Garcia, A.C. Paris, A. Leufroy, M.A. Popot and Y. Bonnaire. **Quantitative analysis of a quaternary ammonium drug: ipratropium bromide by LC/ESI-MS(n) in horse plasma and urine.** *Biomed. Chromatogr.*, 2012, 26, 534-540.

<https://doi.org/10.1002/bmc.1701>

F. Kieken, G. Pinel, J.P. Antignac, A.C. Paris, P. Garcia, M.A. Popot, M. Grall, V. Mercadier, P.L.T. Toutain, Y. Bonnaire and B. Le Bizec. **Generation and processing of urinary and plasmatic metabolomic fingerprints to reveal an illegal administration of recombinant equine growth hormone from LC/HRMS measurements.** *Metabolomics*, 2011, 7, 84-93.

<https://doi.org/10.1007/s11306-010-0233-8>

M.A. Popot, P. Garcia and Y. Bonnaire. **Doping control in horses: housing conditions and oral recycling of flunixin by ingestion of contaminated straw.** *J. Vet. Pharmacol. Therap.*, 2011, 34, 612-614.

<https://doi.org/10.1111/j.1365-2885.2011.01276.x>

F. Balssa, M. Fischer and Y. Bonnaire. **Easy stereoselective synthesis of 5 α -estrane-3 β , 17 α -diol, the major metabolite of nandrolone in the horse.** *Steroids*, 2011, 76, 667-668.

<https://doi.org/10.1016/j.steroids.2011.03.004>

Y. Moulard, L. Bailly-Chouriberry, S. Boyer, P. Garcia, M.A. Popot and Y. Bonnaire. **Use of benchtop exactive high resolution and high mass accuracy orbitrap mass spectrometer for screening in horse doping control.** *Anal. Chim. Acta*, 2011, 700, 126-136.

<https://doi.org/10.1016/j.aca.2011.01.006>

- F. Boyard-Kieken, G. Dervilly-Pinel, P. Garcia, A.C. Paris, M.A. Popot, B. Le Bizec and Y. Bonnaire. **Comparison of different liquid chromatography stationary phases in LC-HRMS metabolomics for the detection of recombinant growth hormone doping control.** *J. Sep. Sci.*, 2011, 34, 3493-3501.
<https://doi.org/10.1002/jssc.201100223>
- P. Garcia, A.C. Paris, J. Gil, M.A. Popot and Y. Bonnaire. **Analysis of β -agonists by HPLC/ESI-MS(n) in horse doping control.** *Biomed. Chromatogr.*, 2011, 25, 147-154.
<https://doi.org/10.1002/bmc.1562>
- E.C. Authie, P. Garcia, M.A. Popot, P.L. Toutain and M. Doucet. **Effect of an endurance-like exercise on the disposition and detection time of phenylbutazone and dexamethasone in the horse: application to medication control.** *Equine Vet. J.*, 2010, 42(3), 240-247.
<https://doi.org/10.1111/j.2042-3306.2010.00029.x>
- L. Bailly-Chouriberry, F. Noguier, L. Manchon, D. Piquemal, P. Garcia, M.A. Popot and Y. Bonnaire. **Blood cells RNA biomarkers as a first long-term detection strategy for EPO abuse in horseracing.** *Drug Test. Anal.*, 2010, 2, 339-345.
<https://doi.org/10.1002/dta.146>
- F. Kieken, G. Pinel, J.P. Antignac, F. Monteau, A.C. Paris, M.A. Popot, Y. Bonnaire and B. Le Bizec. **Development of a metabonomic approach based on LC-ESI-HRMS measurements for profiling of metabolic changes induced by recombinant equine growth hormone in horse urine.** *Anal. Bioanal. Chem.*, 2009, 394, 2119-2128.
<https://doi.org/10.1007/s00216-009-2912-8>
- F. Balssa and Y. Bonnaire. **Syntheses of deuterium labelled atropine and scopolamine.** *J. Label Compd. Radiopharm.*, 2009, 52, 269-272.
<https://doi.org/10.1002/jlcr.1593>
- L. Bailly-Chouriberry, G. Pinel, P. Garcia, M.A. Popot, B. Le Bizec and Y. Bonnaire. **Identification of recombinant equine growth hormone in horse plasma by LC-MS/MS: a confirmatory analysis in doping control.** *Anal. Chem.*, 2008, 80, 8340-8347.
<https://doi.org/10.1021/ac801234f>
- M.A. Popot, A. R. Woolfitt, P. Garcia, J.C. Tabet. **Determination of IGF-I in horse plasma by LC electrospray ionisation mass spectrometry.** *Anal. Bioanal. Chem.*, 2008, 390, 1843-1852.
<https://doi.org/10.1007/s00216-008-1889-z>
- C. Colas, M.A. Popot, P. Garcia, Y. Bonnaire, S. Bouchonnet. **Analysis of iridoids from Harpagophytum and eleutherosides from Eleutherococcus senticosus in horse urine.** *Biomed. Chromatogr.*, 2008, 22, 912-917.
<https://doi.org/10.1002/bmc.1030>
- C. Colas, P. Garcia, M.A. Popot, Y. Bonnaire, S. Bouchonnet. **Optimization of Solid-Phase Extraction for the Liquid Chromatography-Mass Spectrometry Analysis of Harpagoside, 8-para-Coumaroyl Harpagide, and Harpagide in Equine Plasma and Urine.** *J. Chromatogr. Sci.*, 2008, 46(2), 174-183.
<https://doi.org/10.1093/chromsci/46.2.174>

M.A. Popot, S. Boyer, L. Menaut, P. Garcia, Y. Bonnaire, D. Lepage. **Boldenone, testosterone and 1,4-androstadiene-3,17-dione determination in faeces from horses, untreated and after administration of androsta-1,4-diene-3,17-dione (boldione).** *Biomed. Chromatogr.*, 2008, 22, 662-670.

<https://doi.org/10.1002/bmc.985>

L. Bailly-Chouriberry, E. Chu-Van, G. Pinel, P. Garcia, M.A. Popot, G. André-Fontaine, Y. Bonnaire and B. Le Bizec. **Detection of secondary biomarker of met-eGH as a strategy to screen for somatotropin misuse in horseracing.** *Analyst*, 2008, 133, 270-276.

<https://doi.org/10.1039/b713712e>

M. H. Le Breton, S. Rochereau-Roulet, G. Pinel, L. Bailly-Chouriberry, G. Rychen, S. Jurjanz, T. Goldmann and B. Le Bizec. **Direct determination of recombinant bovine somatotropin in plasma from a treated goat by liquid chromatography/high-resolution mass spectrometry.** *Rapid Commun. Mass Spectrom.*, 2008, 22, 3130-3136.

<https://doi.org/10.1002/rcm.3712>

F. Balssa and Y. Bonnaire. **Synthesis of deuterium-labelled meloxicam and piroxicam.** *J. Label Compd. Radiopharm.*, 2007, 50, 207-210.

<https://doi.org/10.1002/jlcr.1261>

F. Balssa and Y. Bonnaire. **Easy preparative scale syntheses of labelled xanthines: Caffeine, theophylline and theobromine.** *J. Label Compd. Radiopharm.*, 2007, 50, 33-41.

<https://doi.org/10.1002/jlcr.1154>

L. Dehennin, E. Petit, Y. Bonnaire, J.F. Bruyas, B. Le Bizec, P. Plou. **Urinary excretion of 5(10)-estrene-3beta,17alpha-diol and estrone by the female horse: complementary indicators of early pregnancy screened with regard to a putative anabolic doping practice.** *J. Steroid Biochem. Mol. Biol.*, 2007, 104(1-2), 85-91.

<https://doi.org/10.1016/j.jsbmb.2006.10.005>

L. Dehennin, Y. Bonnaire, P. Plou. **Detection of nandrolone administration to the entire male horse by a provisional concentration threshold for urinary oestradiol determined by gas chromatography-mass spectrometry.** *Equine Vet. J.*, 2007, 39(2), 186-188.

<https://doi.org/10.2746/042516407X170418>

S. Boyer, P. Garcia, M. A. Popot, V. Steiner, M. Lesieur. **Detection of testosterone propionate administration in horse hair samples.** *J. Chromatogr. B*, 2007, 852, 684-688.

<https://doi.org/10.1016/j.jchromb.2007.02.046>

M.A. Popot, L. Menaut, S. Boyer, Y. Bonnaire, P.L. Toutain. **Spurious urine excretion drug profile in horse due to bedding contamination and drug recycling: The case of meclufenamic acid.** *J. Vet. Pharmacol. Therap.*, 2007, 30, 179-184.

<https://doi.org/10.1111/j.1365-2885.2007.00835.x>

C. Colas, P. Garcia, M.A. Popot, Y. Bonnaire, S. Bouchonnet. **Liquid Chromatography/Electrospray Ionization Mass Spectrometric Characterization of Harpagophytum in Equine Urine and Plasma,** *Rapid Commun. Mass Spectrom.*, 2006, 20, 3257-3266.

<https://doi.org/10.1002/rcm.2721>

C. Colas, S. Bouchonnet, F. Rogalewicz-Gillard, M.A. Popot and G. Ohanessian. **Proton and Sodium Cation Affinities of Harpagide: A Computational Study.** *J. Phys. Chem. A*, 2006, 110, 7503-7508.

<https://doi.org/10.1021/jp061526u>

F. Respondek, A. Lallemand, V. Julliand, Y. Bonnaire. **Urinary excretion of dietary contaminants in horses.** *Equine Vet. J., Suppl.*, 2006, 36, 664-667.

<https://doi.org/10.1111/j.2042-3306.2006.tb05623.x>

M.A. Popot, A. Donval, Y. Bonnaire, J. Huau. **Use of accelerating solvent extraction for detecting non-steroidal anti-inflammatory drugs in horse faeces,** *J. Anal. Toxicol.*, 2006, 30, 323-330.

<https://doi.org/10.1093/jat/30.5.323>

F. Lasne, M.A. Popot, L. Martin, J.A. Martin, Y. Bonnaire, E. Varlet-Marie, M. Audran, J. De Ceaurriz. **Detection of recombinant Epoetin and Darbepoetin alpha after subcutaneous administration in the horse.** *J. Anal. Toxicol.*, 2005, 29, 835-837.

<https://doi.org/10.1093/jat/29.8.835>

P.L. Toutain, N. Reymond, V. Laroute, P. Garcia, M.A. Popot, Y. Bonnaire, A. Hirsch, R. Narbe. **Pharmacokinetics of meloxicam in plasma and urine of horses.** *Am. J. Vet. Res.*, 2004, 65(11), 1542-1547.

<https://doi.org/10.2460/ajvr.2004.65.1542>

M.A. Popot, Y. Bonnaire, J. Guechot, P.L. Toutain. **Hyaluronan in the horse: physiological production rate, plasma and synovial fluid concentrations in control conditions and after sodium hyaluronate administration.** *Equine Vet. J.*, 2004, 36(6), 482-487.

<https://doi.org/10.2746/0425164044877350>

E. N. M. Ho, K. C. H. Yiu, F. P. W. Tang, L. Dehennin, P. Plou, Y. Bonnaire, T. S. M. Wan. **Detection of endogenous boldenone in the entire male horses.** *J. Chromatogr. B*, 2004, 808, 287-294.

<https://doi.org/10.1016/j.jchromb.2004.05.018>

D. Grancher, P. Jaussaud, A. Durix, A. Berthod, B. Fenet, Y. Moulard, Y. Bonnaire, S. Bony. **Countercurrent chromatographic isolation of lolitrem B from endophyte-infected ryegrass (*Lolium perenne* L.) seed.** *J. Chromatogr. A*, 2004, 1059, 73-81.

<https://doi.org/10.1016/j.chroma.2004.10.024>

M.A. Popot, N. Stojiljkovic, P. Garcia, Y. Bonnaire, J.C. Tabet. **First mass spectrometric detection of boldenone in horse mane samples.** *Chromatographia*, 2003, 57, 255-260.

<https://link.springer.com/article/10.1007/BF02491725>

L. Dehennin, Y. Bonnaire, P. Plou. **Human nutritional supplements in the horse: comparative effects of 19-norandrostenedione and 19-norandrostenediol on the 19-norsteroid profile and consequences for doping control.** *J. Chromatogr. B*, 2002, 766, 257-263.

[https://doi.org/10.1016/S0378-4347\(01\)00506-0](https://doi.org/10.1016/S0378-4347(01)00506-0)

P. Garcia, M.A. Popot, F. Fournier, Y. Bonnaire, J.C. Tabet. **Gas phase behaviour of negative ions produced from thiazidic diuretics under electrospray conditions.** *J. Mass Spectrom.*,

2002. 37, 940-953.

<https://doi.org/10.1002/jms.353>

M.A. Popot, S. Bobin, Y. Bonnaire, G. Pirens, J. Closset, P. Delahaut, J.C. Tabet. **HPLC-ion trap mass spectrometry for the determination of Insulin-like Growth Factor in horse plasma.** *Chromatographia*, 2001, 54, 737-741.

<https://link.springer.com/article/10.1007/BF02492492>

L. Dehennin, Y. Bonnaire, P. Plou. **Human nutritional supplements in the horse. Dehydroepiandrosterone versus androstenedione: comparative effects on the androgen profile and consequences for doping analysis.** *J. Anal. Toxicol.*, 2001, 25, 685-690.

<https://doi.org/10.1093/jat/25.8.685>

S. Bobin, M.A. Popot, Y. Bonnaire and J.C. Tabet. **Approach to the determination of insulin-like-growth factor-I (IGF-I) concentration in plasma by high-performance liquid chromatography-ion trap mass spectrometry: use of a deconvolution algorithm for the quantification of multiprotonated molecules in electrospray ionization.** *Analyst*, 2001, 126, 1996-2001.

<https://doi.org/10.1039/B105022M>

M.A. Popot, S. Bobin, Y. Bonnaire, P. Delahaut, J. Closset. **IGF-I plasma concentrations in non-treated horses and horses administered with Methionyl Equine Somatotropin.** *Res. Vet. Sci.*, 2001, 71, 167-173.

<https://doi.org/10.1053/rvsc.2001.0505>

M.A. Popot, S. Boyer, P. Maciejewski, P. Garcia, Y. Bonnaire, L. Beyet, D. Lesage, J.C. Tabet. **Determination of clenbuterol in horse hair by gas chromatography-tandem mass spectrometry.** *Chromatographia*, 2001, 53, Suppl., 375-379.

<https://doi.org/10.1007/BF02490360>

C. Jouvel, P. Maciejewski, P. Garcia, Y. Bonnaire, S. Horning, M.A. Popot. **Detection of diazepam in horse hair samples.** *Analyst*, 2000, 125, 1765-1769.

<https://doi.org/10.1039/B003418P>

Y. Bonnaire, M.A. Popot and L. Dehennin. **Le contrôle antidopage des animaux, nouvelles perspectives, nouvelles méthodes.** *Ann. Toxicol. Anal.*, 2000, 12, 97-103.

<https://doi.org/10.1051/ata/2000037>

F. Schelcher, N. Picard-Hagen, V. Laroute, V. Gayrard, M.A. Popot, O. Andreoletti and P.L. Toutain. **Corticoid concentrations are increased in the plasma and urine of ewes with naturally occurring scrapie.** *Endocrinology*. 1999, 140, 2422-2425.

<https://doi.org/10.1210/endo.140.5.6896>

M.A. Popot, E. Lacabartz, P. Garcia, V. Laroute, Y. Bonnaire, P.L. Toutain, D.A. Cowan. **New approaches to detect cortisol administration in the horse.** *Equine Vet. J.*, 1999, 31(4), 278-284.

<https://doi.org/10.1111/j.2042-3306.1999.tb03817.x>

A. Durix, P. Jaussaud, P. Garcia, Y. Bonnaire, S. Bony. **Analysis of ergovaline in milk using high-performance liquid chromatography with fluorimetric detection.** *J. Chromatogr. B*,

1999, 729, 255-263.

[https://doi.org/10.1016/S0378-4347\(99\)00166-8](https://doi.org/10.1016/S0378-4347(99)00166-8)

L. Dehennin, Y. Bonnaire, P. Plou. **Urinary excretion of 19-norandrosterone of endogenous origin in man: quantitative analysis by gas chromatography-mass spectrometry.** *J. Chromatogr. B*, 1999, 721, 301-307.

[https://doi.org/10.1016/S0378-4347\(98\)00480-0](https://doi.org/10.1016/S0378-4347(98)00480-0)

Y. Bonnaire. **Les problèmes actuels du contrôle antidopage équin.** *Revue Française des Laboratoires*, 1999, 310, 73-76.

[https://doi.org/10.1016/S0338-9898\(99\)80378-3](https://doi.org/10.1016/S0338-9898(99)80378-3)

M.A. Popot, P. Garcia, F. Fournier, Y. Bonnaire, J.C. Tabet. **Different approaches to the identification of a cortisol isomer compound in horse urine.** *Analyst*, 1998, 123, 2649-2652.

<https://doi.org/10.1039/A805450I>

M.A. Popot, E. Houghton, A. Ginn, M. Jones, P. Teale, T. Samuels, V. Lassourd, N. Dunnett, D.A. Cowan, Y. Bonnaire, P.L. Toutain. **Cortisol concentration in horse urine: a French and British survey.** *Equine Vet. J.*, 1997, 29(3), 226-229.

<https://doi.org/10.1111/j.2042-3306.1997.tb01673.x>

R. Aguilera, M. Becchi, L. Mateus, M.A. Popot, Y. Bonnaire, H. Casabianca, C. K. Hatton. **Detection of exogenous hydrocortisone in horse urine by gas chromatography-combustion-carbon isotope ratio mass spectrometry.** *J. Chromatogr. B*, 1997, 702, 85-91.

[https://doi.org/10.1016/S0378-4347\(97\)00375-7](https://doi.org/10.1016/S0378-4347(97)00375-7)

P. Garcia, M.A. Popot, F. Fournier, J.C. Tabet. **Long-distance stereochemical effects in deprotonated epimeric androstanediols in tandem mass spectrometry.** *Rapid Commun. Mass Spectrom.*, 1995, 9, 23-26.

<https://doi.org/10.1002/rcm.1290090107>

P.L. Toutain, V. Lassourd, M.A. Popot, V. Laroute, M. Alvinerie and Y. Bonnaire. **Urinary Cortisol excretion in the resting and exercising horse.** *Equine Vet. J., Suppl.* 1995, 18, 457-462.

<https://doi.org/10.1111/j.2042-3306.1995.tb04973.x>

Y. Bonnaire, L. Dehennin, P. Plou and P.L. Toutain. **Testosterone administration to mares: Criteria for detection of testosterone abuse by analysis of metabolites in plasma and urine.** *J. Anal. Toxicol.*, 1995, 19, 175-181.

<https://doi.org/10.1093/jat/19.3.175>

Y. Bonnaire, J.P. Lafarge. **Peptides et dopage : un nouveau challenge pour les laboratoires.** *Sci. Sports*, 1995, 10, 83-85.

[https://doi.org/10.1016/0765-1597\(96\)89531-1](https://doi.org/10.1016/0765-1597(96)89531-1)

P. Jaussaud, D. Guieu, D. Courtot, B. Barbier, Y. Bonnaire. **Identification of a tolfenamic acid metabolite in the horse by gas chromatography-mass spectrometry.** *J. Chromatogr. B*, 1992, 573, 136-140.

[https://doi.org/10.1016/0378-4347\(92\)80486-A](https://doi.org/10.1016/0378-4347(92)80486-A)

E. Benoit, P. Jaussaud, S. Besse, B. Videmann, D. Courtot, P. Delatour, Y. Bonnaire. **Identification of a benzhydrolic metabolite of ketoprofen in horses by gas chromatography-mass**

spectrometry and high-performance liquid chromatography. *J. Chromatogr. B*, 1992, 583, 167-173.

[https://doi.org/10.1016/0378-4347\(92\)80549-6](https://doi.org/10.1016/0378-4347(92)80549-6)

Y. Bonnaire, P. Plou, N. Pages, C. Boudene and J.M. Jouany. **GC/MS Confirmatory Method for Etorphine in Horse Urine**, *J. Anal. Toxicol.*, 1989, 13, 193-196.

<https://doi.org/10.1093/jat/13.4.193>

P. Silberzahn, I. Zwain, P. Guerin, E. Benoit, J. M. Jouany, Y. Bonnaire. **Testosterone response to human chorionic gonadotropin injection in the stallion**. *Equine Vet. J.*, 1988, 20(1), 61-63.

<https://doi.org/10.1111/j.2042-3306.1988.tb01456.x>

J.M. Jouany, Y. Bonnaire, J. Belegaud, C. Boudene. **Application of gas-chromatography/mass spectrometry to research and routine testing**. *Br. J. Sports Med.*, 1976, 10, 158.

<https://doi.org/10.1136/bjism.10.3.158>